



Pedestrian-and bicycle-friendly interchanges

Definition

A grade-separated intersection between an urban roadway (arterial, collector, or local road) and a freeway or limited-access highway, where the design of the freeway ramps and the bridge or underpass carrying the urban roadway is designed to ensure pedestrian and bicyclist access and safety.

Objective

To provide safe and convenient access and mobility for pedestrians and bicyclists at and across freeway/roadway interchanges.

Advantage

Improved safety from designs that reduce or eliminate high speed free flowing vehicular movements onto freeway and/or when merging with urban roadway.

Marginal cost for major (construction) projects is minimal.

Helps to eliminate significant barriers to bicycle and pedestrian travel between communities and destinations.

Challenge

Too costly to do as a retrofit—must be part of new interchange construction or complete reconstruction project.

Safety and mobility goals can be difficult to balance.

Resources

Recommended Design Guidelines to Accommodate Pedestrians and Bicycles at Interchanges (2014) <http://ecommerce.ite.org/IMIS/ItemDetail?iProductCode=RP-039>.

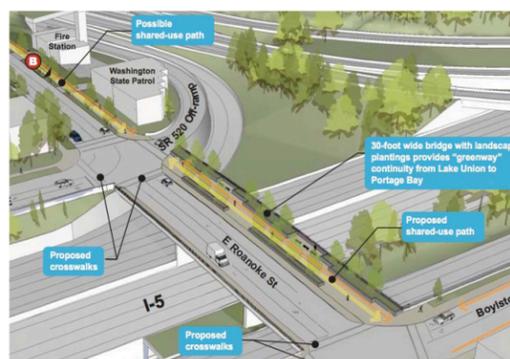
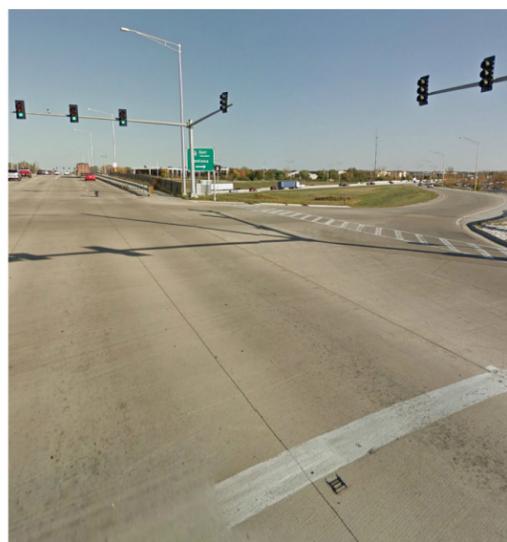
Bicycle and Pedestrian Safety Needs at Grade-Separated Interchanges (NJDOT, updated 2008) http://www.bikewalktwincities.org/sites/default/files/Interchange_final_report_FINAL_o80508.pdf.

Caltrans “Complete Intersections: A Guide to Reconstructing Intersections and Interchanges for Bicyclists and Pedestrians,” Chapter 9 — Interchanges <http://www.dot.ca.gov/hq/traffops/survey/pedestrian/Complete-Intersections-A-Guide-to-Reconstructing-Intersections-and-Interchanges-for-Bicyclists-and-Pedestrians.pdf>.

PedSafe — Pedestrian Accommodations at Complex Interchanges http://www.pedbikesafe.org/PEDSAFE/countermeasures_detail.cfm?CM_NUM=30.

Bikes & Freeway Interchanges: Getting Your DOT To Do It Right (presentation at Pro Bike / Pro Walk 2006) <http://www.bikewalk.org/2006conference/vconference/presentations/BikeandFreewayInterchanges.pdf>.

KIPDA Interchange—Bicycle / Pedestrian Safety Study http://www.kipda.org/files/pdf/transportation_division/Information/KIPDA_Interchange_Bike-Ped_FINAL_Report.pdf.



South end of Fanita Bike Path on north side of Navajo Road, just west of exit from southbound Highway 125. January 7, 2004

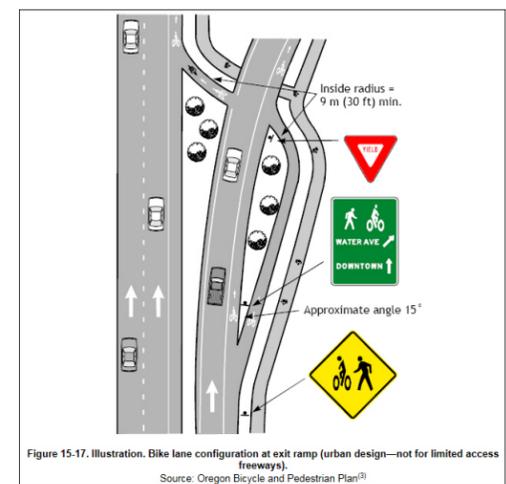


Figure 15-17. Illustration. Bike lane configuration at exit ramp (urban design—not for limited access freeways). Source: Oregon Bicycle and Pedestrian Plan⁹

Images (clockwise from main image):

Example of a pedestrian-friendly interchange. Source: Federal Highway Administration, “Designing for Pedestrian Safety.”

Additional examples: Sources: Google Streetview; Philip Erdelsky, San Diego County Red Routes; Washington State Department of Transportation, Flickr; Oregon Cycle and Pedestrian Plan; Aaron Volkening, Flickr; Chicago Metropolitan Agency for Planning; Washington State Department of Transportation. .